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(54) Title: *IN VITRO PLATFORM FOR SCREENING AGENTS INDUCING ISLET CELL NEOGENESIS*

(57) Abstract: The present invention relates to an *in vitro* method for screening agents inducing islet cell neogenesis or duct-to-islet cell transdifferentiation, which comprises the steps of: a) expanding *in vitro* cells of a duct-like structure obtained by inducing cystic formation in cells in or associated with post-natal islets of Langerhans; b) treating said expanded cells of said duct-like structure with an agent screened; and c) determining potency of said agent of inducing islet cell differentiation of said duct-like structure in becoming insulin-producing cells.